(No Model.) 3 Sheets—Sheet 1.

W. C. STEWART & J. A. BLANKLEY.

LANTERN.

No. 452,857. Patented May 26, 1891.

FIG. 2.

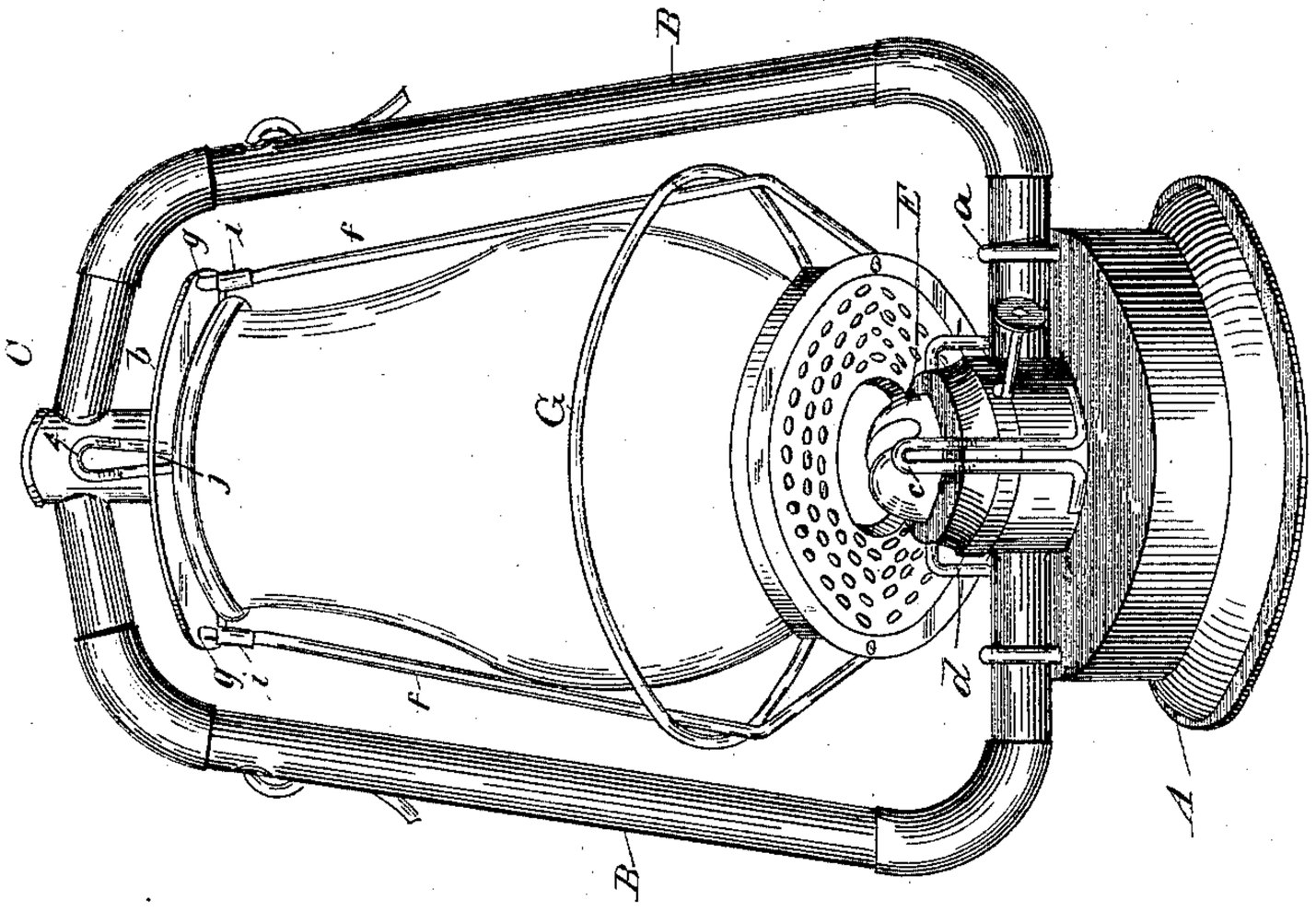

FIG. 1.

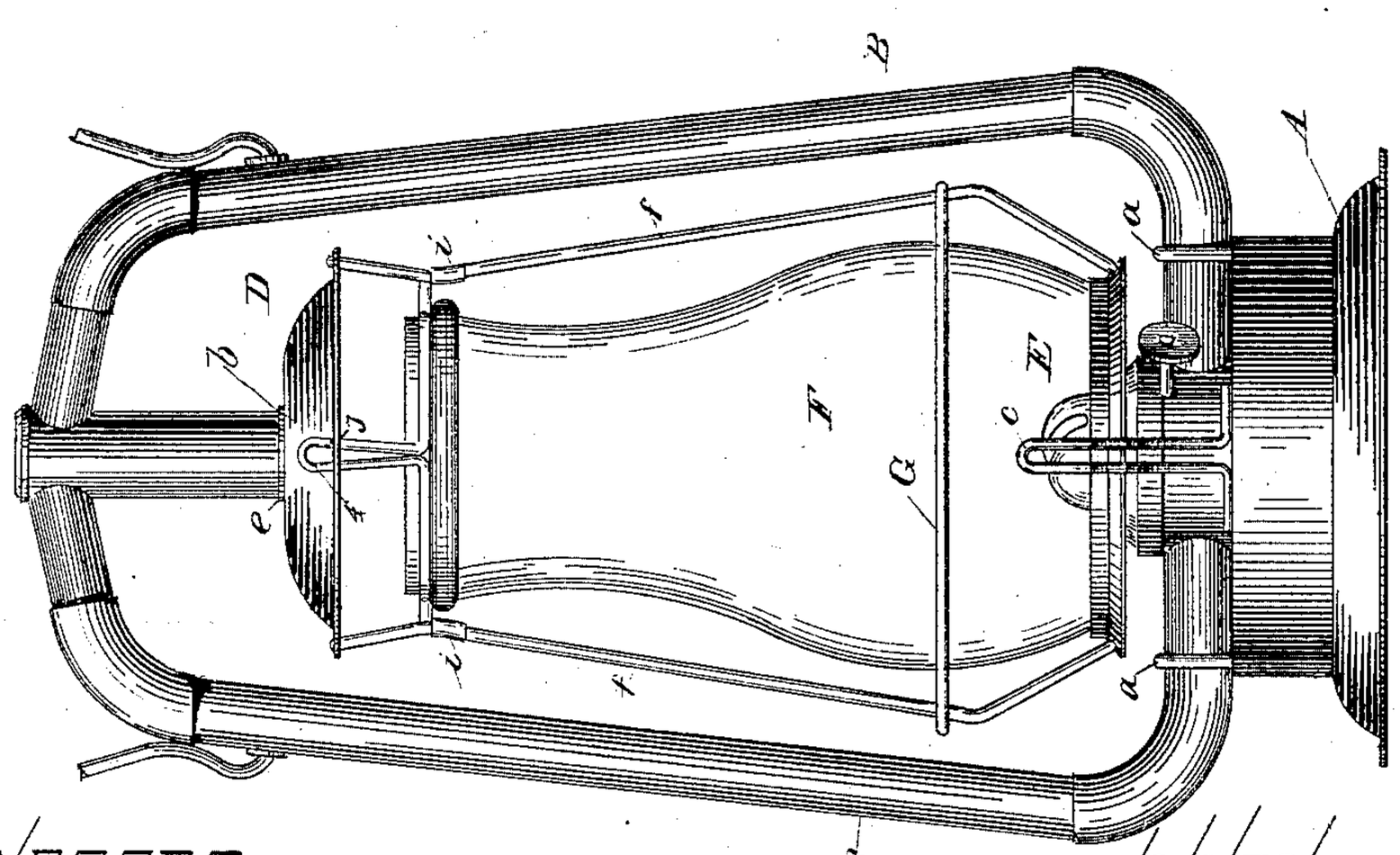

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FIG. 4.

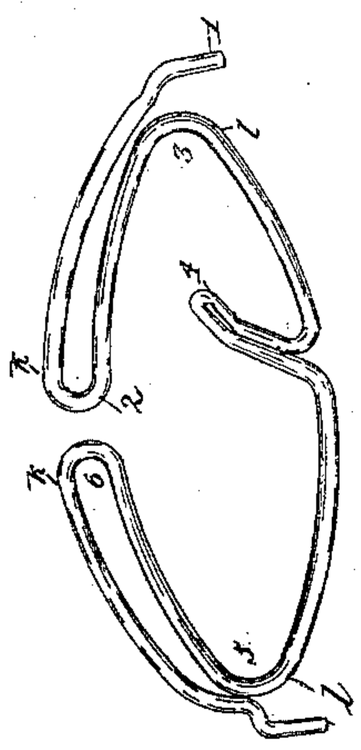


FIG. 5.

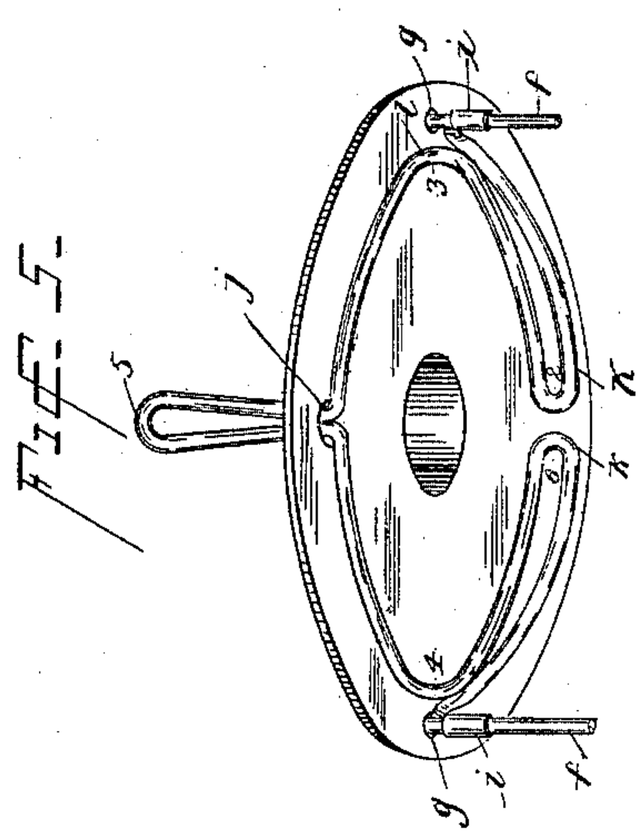
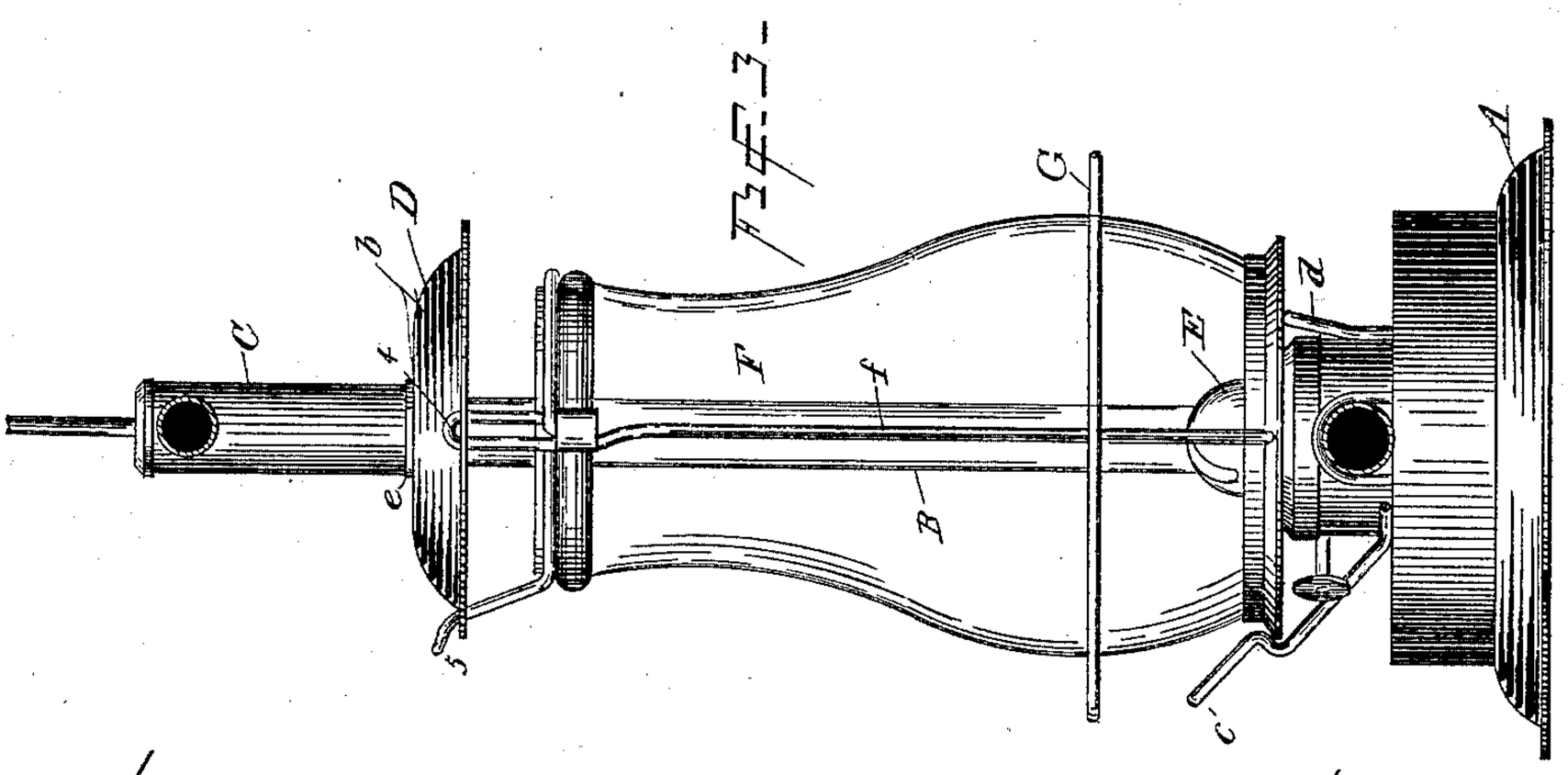


FIG. 3.



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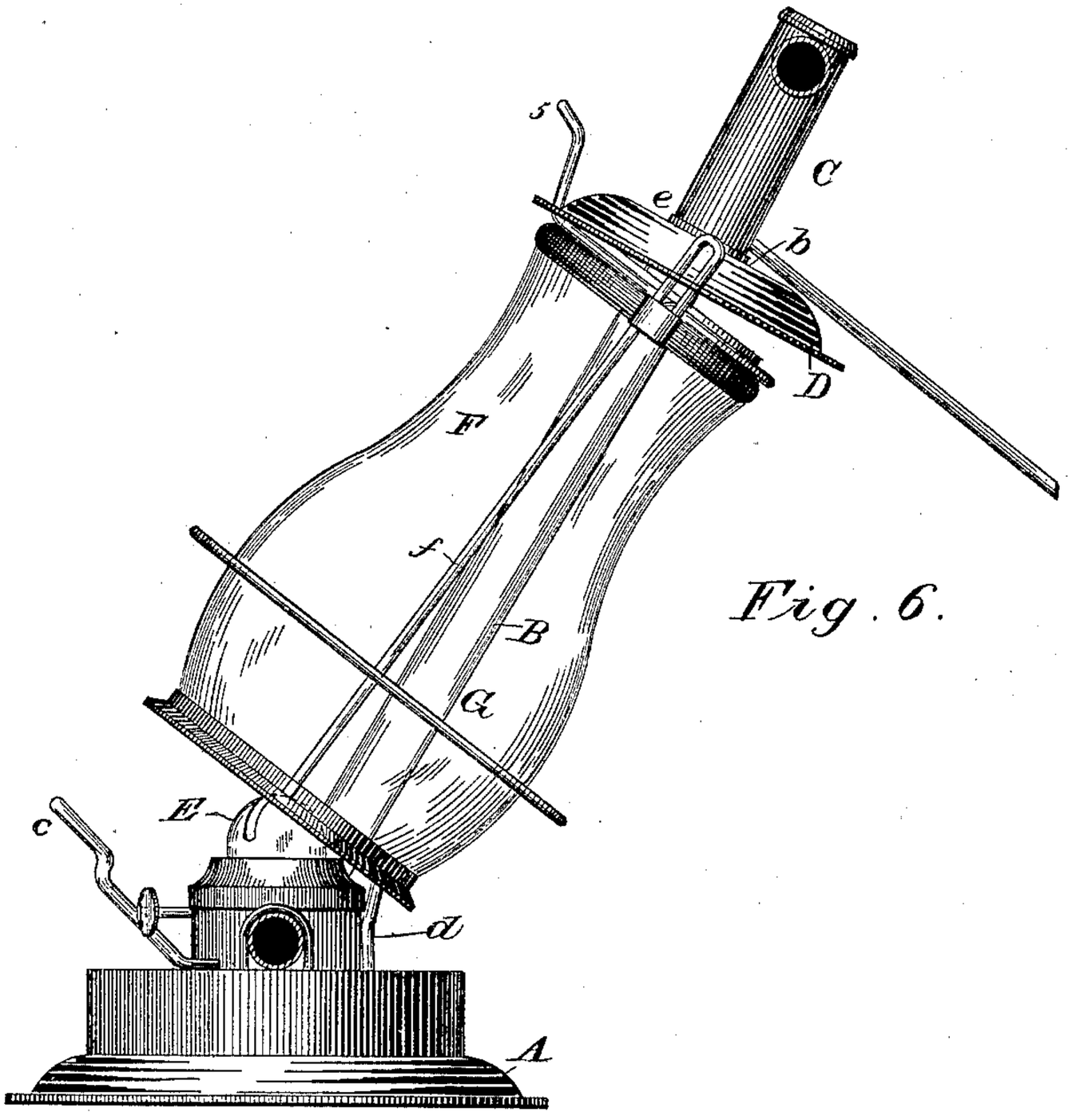

Fig. 6.

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UNITED STATES PATENT OFFICE.

WILLIAM C. STEWART AND JAMES A. BLANKLEY, OF BELLAIRE, OHIO.

LANTERN.

SPECIFICATION forming part of Letters Patent No. 452,857, dated May 26, 1891.

Application filed September 10, 1890. Serial No. 364,511. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM C. STEWART and JAMES A. BLANKLEY, citizens of the United States, residing, respectively, at Bellaire, in the county of Belmont and State of Ohio, have invented certain new and useful Improvements in Lanterns; and we do hereby declare the following to be a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to various new and useful improvements in those tubular lanterns wherein the side tubes are pivotally connected to the base and whereby the globe is elevated from the burner-cone by a movement of the side tubes.

The principal object of the present invention is to provide a means whereby the globe may be elevated from the burner-cone without the necessity of any movement of the canopy or bell on the central tube. By this means a very great objection is overcome—viz., the leakage of the hot air between the central tube and the canopy or bell. By this means, also, the globe is held much more rigid and secure at its upper end than if the canopy were movable on the central tube.

A secondary object of our invention is to provide and produce a grip of novel construction for holding the upper end of the globe and by which the globes of varying sizes may be held in the same lantern.

For a better comprehension of our invention attention is invited to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a front elevation of our tubular lantern, showing the globe in position over the burner-cone; Fig. 2, a perspective view of the same, the burner exposed ready for lighting; Fig. 3, a side elevation with one of the side tubes removed; Fig. 4, a perspective view of the grip removed from the lantern; Fig. 5, a perspective view, looking upwardly, of the grip and canopy, illustrating the means of attaching the grip to the guard in all of the above views; and Fig. 6, a side elevation with one of the side tubes removed and with the globe in a tilted position.

In all of the above views corresponding parts are indicated by the same letters and figures of reference.

Most of the parts of our improved lantern are common with other tubular lanterns and need not be particularly described. These parts are the base A, the side tubes B B, the central tube C, the canopy or bell D, the burner and burner-cone E, the globe F, and the connecting-wires and guard G. In this lantern the side tubes are pivoted or hinged at their lower ends by means of wire loops *a* entering the oil-receptacle and soldered thereto. The inner ends of the side tubes enter the air-chamber beneath the burner-cone and supply air thereto in the ordinary way. The globe-disk is supported at one side on a wire hinge *d*, and is capable of pivotal movement thereon. When the disk is in a horizontal position over the burner-cone, it is locked by means of a wire latch *c*, soldered either to the base or to the air-chamber beneath the burner-cone. The central tube C is provided at its lower end with a bead or shoulder *b*, against which the canopy or bell is set. After being placed in position on the central tube the lower end thereof is flanged over, as at *e*, upon the canopy or bell, so as to hold the same firmly in position.

In order to further strengthen the position of the canopy or bell on the central tube it is advisable to solder the same all around at the flange *e*. Each side wire *f* passes up from the globe-disk and extends up through an opening *g* in the canopy or bell. Each side wire is then bent back upon itself, as shown, and passes back through another opening adjacent to the opening *g*. The end of each side wire passes down parallel to the main portion for a distance of about an inch. The free end of each side wire is connected with the main portion of the same by means of a flat metal link *i*, which is soldered in position.

The globe-grip will now be described. Beginning with the end 1, which is soldered in position within the link *i* between the two portions of the side wire *f*, it extends horizontally backward in the shape almost of two quadrants to the point 2. At this point it is bent directly back on itself and extends around to the point 3 of almost half-circle. From this point it extends upwardly with a slight curve

toward the front through an opening *j* in the canopy or bell to the point 5. At this point it is bent directly back on itself and extends down to the opening *j* to a point 4, which corresponds exactly with the point 3. From this point it extends on a horizontal plane in the form of an almost half-circle to the point 6, which corresponds with the point 2. From this point it extends in a horizontal direction in the form of a quadrant, or nearly so, and is soldered within the link *i* on the other side between the two parallel portions of the side wire. It will therefore be seen that our improved globe-grip consists, generally, of two quadrant portions *k k*, two semicircular portions 1 1, and an elevating thumb-piece, all made of a single piece of wire. When the globe is to be inserted in the lantern, it is first placed upon the disk and the thumb-piece is elevated, which will move the circular pieces obliquely upward and allow for the easy entrance of the globe within the grip. It should of course be understood that the globe is provided near its upper end with the ordinary bead with which the grip is to engage. In ordinary size globe when the thumb-piece is elevated the quadrant-pieces *k k* will not be moved out of their horizontal position; but in globes of longer length the quadrant-pieces will be moved upward to allow the semicircular portions to clear the bead on the globe.

The operation of our lantern, when it is desired to light the same, is as follows: The side tubes and connections are moved to one side, which can be done by reason of their being pivoted to the base. This will of course move the globe with them; but since it is pivoted to a wire hinge to one side and above the pivoting-point to the side tube it will be moved in a shorter arc in the side tube and it will be elevated with respect to them. As the globe is thus elevated, the side wires will be allowed to move within the openings *g* in the canopy or bell. This double movement of the globe is necessary in order that the opening in the globe-disk may clear the burner-cone. In this way we obviate the necessity of having the canopy or bell disconnected from the central tube and overcome the objection before pointed out.

Having now described our invention, what we claim as new therein, and desire to secure by Letters Patent, is—

1. The combination of the base, side tubes, central tube, the canopy or bell rigidly secured thereto, and a globe-disk pivoted to one side of the burner-cone, and side wires extending up from the said disk and passing through openings in the canopy or bell, so as to have movement therein, said side tubes being pivoted to the base of the lantern, substantially as set forth.

2. In a tubular lantern, the combination of the base side tubes pivoted thereto, central tube, canopy or bell rigidly secured thereto, a globe-disk pivoted to one side of the burner-cone, side wires extending up from said disk and extending up through an opening in the canopy or bell, each wire being bent back on itself with the free end connected to the main portion by means of the link, and a globe, substantially as set forth.

3. As an improvement in tubular lanterns, the combination of the base, side tubes, central tube, canopy or bell, burner and burner-cone, globe-disk, side wires, and a globe-grip attached to said side wires and consisting of the two quadrant portions *k k*, the semicircular portions 1 1, and a thumb-piece *m*, and made of a single piece of wire, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM C. STEWART.
JAMES A. BLANKLEY.

Witnesses:
H. E. RANDOLPH,
ELLSWORTH HIBBS.